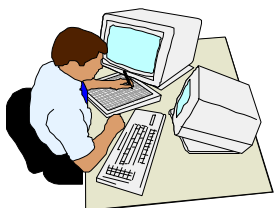


Information Systems Center/580

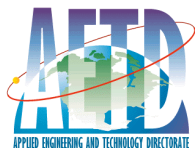
AETD Institutional Status Review



Presented by:

**Howard Eiserike
Branch Head/585
Computing Environments and Technology Branch
Information Systems Center**

-
- **PROJECT PROGRESS**
 - Flight Projects
 - Science Support
 - Infrastructure Support
 - ISC Technologies and Initiatives
 - **MAJOR PROJECT ISSUES AND ACTION PLAN**
 - **“GOOD NEWS” REPORT**
 - **TECHNOLOGY HIGHLIGHTS**
 - **INSTITUTIONAL STATUS**
 - Papers and Conferences
 - Collaborations
 - Outreach
 - IT Security
 - Safety
 - QMS
 - Facilities
 - **SPECIAL PRESENTATION**
 - Web Based Action Item System
-

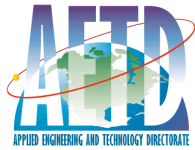


PROJECT STATUS



End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/ Highlights/Comments	Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
<i>Flight Projects</i>							
ADEOS2 Ground Implementation	Code 450/NASDA /NOAA	584W	1) Delivered ADEOS2 Data Stripper to Alaska SAR Facility. Currently performing integration and testing with ASF monitor and control and tracking facility systems. 2) Delivered SAFS to Alaska SAR Facility in preparation for ADEOS2. System will be used in support of other ASF data distribution activities until launch of ADEOS2.				
Flight Software	CGRO	582	1) Supported analysis and recovery from onboard gyro #3 failure; supporting preparations for controlled reentry of spacecraft. 2) Delivered tested TF28 clock rollover procedures to Ops for ephemeris interruption and re-enable. Supported on-orbit rollover of the clock on December 22, 1999.				
	EO-1	583, 584	1) Conducted EO-1 FOR on November 16-17, 1999, 15 RFA's generated. Presented Ops portion of Pre-ship review December 15-17, 1999. 2) Successfully supported launch simulations and end-to-end readiness tests for ground components.				
FDS - Terra	EOS	583	1) Successfully supported launch and generation of orbit and attitude products from the Terra Flight Dynamics System. 2) Maintenance transition agreement completed with Earth Science Mission Operations Project (428)				
Flight Software-Terra	EOS	582	FSW maintenance team successfully isolated the source of an error in the navigation flight code that caused the s/c controls computer to enter Safehold mode. Team uplinked a patch to resume normal operations.				

BI-MONTHLY ISR – February 2, 2000



PROJECT STATUS (Cont'd)



End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/ Highlights/Comments	Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
FDS - Aqua	EOS	583	Successfully conducted FDS architecture peer review.				
Mission Operations ESDIS/TERRA Systems	ESDIS	581, 585, 586	<ol style="list-style-type: none"> 1) Overall 580 support of ESDIS/EOS culminated in a successful launch. Commissioning phase is successfully being managed by 581 Mission Director, Bob Kozon. 2) Jeff Smith, Code 585, Terra/ASTER instrument Network Operational Agreement signed between NASA and Japanese Ministry of International Trade and Industry (MITI). 3) Jeff Smith, Code 585, Terra, TRMM, ICESat, QuikSCAT Network Operational Agreement and Interface Control Document signed between NASA and NASDA. 4) Clayton Sigman, Code 585, installed Intrusion Detection System for Terra IT Systems. 5) Code 586 conducted successful Test Readiness Review for ECS Release 5B Turnover 1. 6) Code 586 completed installation and checkout of the Performance Verification Center (PVC)--an environment to conduct ECS performance testing prior to delivery to the DAACs. 7) Code 586's SEDAC's Environmental Treaty and Resource Indicators database will be listed in an Index of important law-related Internet sites being developed by the Secretariat of the Law Reform Commission of Hong Kong. (http://www.info.gov.hk/hkreform/index.htm) 8) Code 586 is demonstrating a data billing and accounting prototype, created by integrating existing software (COTS) to economically provide functionality missing in the ECS. 				Being worked with ESDIS Managers

BI-MONTHLY ISR – February 2, 2000

PROJECT STATUS (Cont'd)

End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/ Highlights/Comments	Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
Hitchhiker HCU	Attached Shuttle Payloads	800	Successfully supported Hitchhiker Central Unit (HCU) thermal vacuum testing				
	HST	581, 586	<ol style="list-style-type: none"> 1) HST's reengineered ground system, CCS, performed flawlessly during the SM3A Mission. No problems receiving telemetry or commanding HST while on Shuttle. 2) Conducted Health & Safety checks after Hubble release from the Space Shuttle. 3) Developed a special contingency plan for NISN support in the event of an emergency. 4) Provided the Anomaly Response Manager on the Planning Shift to support the HST SM3A Mission. 				
Flight Software-SSM	HST	582	<ol style="list-style-type: none"> 1) Flawless preparation and support to HST SM3A. Flawless 486 FSW performance since on-orbit installation (Only one minor telemetry scaling difference from DF224). 2) Team uploaded first FSW patch to fix a minor bug in the battery/K-relay index to accommodate new response to the battery pressure test. 3) Pre-SM3A: supported investigations into zero-gyro safing control mode large excursions from Sun. 				
Flight Software-Payload	HST	582	<ol style="list-style-type: none"> 1) Delivered NSSC-1 FSW Release 7.2A for use in Aft Shroud Cooling System/NICMOS embedded software integration testing 2) Delivered new Release 6.0 for ground system testing of the NSSC-1 FSW. Provided HST SSM simulation and post test analysis tools. 3) Supported investigations into multi-bit EDAC error that occurred during initialization of the NICMOS instrument following SM3A. 				

BI-MONTHLY ISR – February 2, 2000

PROJECT STATUS (Cont'd)

End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/ Highlights/Comments	Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
Flight Software	NGST	582	<ol style="list-style-type: none"> 1) Leslye Boyce presented 582 Technology Infusion Initiatives to the NGST Project, and made a CS commitment to support ISIM, SI and SSM Instrument Development. 2) Leslye Boyce presented onboard Event Driven Scheduling Concept to Prime contractors and continues to refine requirements. 3) Ken Rehm expanded NGST flight data system architecture study to include a review of the JPL x2000 system. 				
Pre-Ship Review	IMAGE	581	Provided review panel member for the IMAGE Pre-Ship Review.				
IMAGE WAN/LAN Ground System Communications	IMAGE	586	Successfully updated IMAGE LZ Product Generation Software due to performance problems encountered during packet sorting.				
IT Security	IMAGE/MAP	584	Upgraded access security on about 10 MAP/IMAGE workstations to reduce threat of hacking				
Flight Software	MAP	582	<ol style="list-style-type: none"> 1) Completed FSW Design Review to support a contingency Ball Star Tracker. Completed Build 2 development. 2) Delivered new FSW builds for 4 flight processors. Analyzed and debugged A/D anomalies found on HKRSN in MAC (MIDEX Attitude Control and Command and Data Handling Sub-System) thermal vac. 	MAC T/V anomalies in MV#1 Card			
NPP	Code 420	585, 586	<ol style="list-style-type: none"> 1) Drafted Level 2 Requirements for the Science Data Segment. 2) Supported NPP Interim Science Panel Meeting, January 17 & 18, 2000. 				

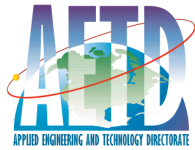
PROJECT STATUS (Cont'd)

End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/ Highlights/Comments	Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
Flight Software	SWAS	582	Built, tested, and supported uplink of a new Data Storage table to collect astroseismology data for the SAOSOC.				
Flight Software	TRMM	582	Delivered and supported uplink of a FSW patches for reworked TSM tables and PSIB Timer Comparison Logic.				
ULDB TDRSS Data Interface System, Flight Software, & Control Center	820	584W	<ol style="list-style-type: none"> 1) Delivered TDRSS Data Interface prototype boards to project for environmental and interface testing. 2) Conducted Peer and Design Reviews for ULDB Flight SW. Development of core system underway. 3) Control Center SW delivered and installed on target systems. Configuration underway. 	Project Requirements continue to be unstable.	Delays in interface definitions are impacting development efforts		
Science Support							
LENA Science Data Analysis	LENA/IMAGE	586	<ol style="list-style-type: none"> 1) Completed extensive effort to validate LENA science and housekeeping data after conversion from Level-0 to Universal Data Format (UDF). 2) Updated web-site to allow scientists to submit parameters, view raw science and housekeeping data plots and ASCII dumps, access project-specific information, and view a movie sample of the browse product. 				
GSFC DAAC	Code 420	586	Co-chaired a new ESE Federation sub-committee charged with developing strategies for widening the user base for Earth science data.				

PROJECT STATUS (Cont'd)

End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/ Highlights/Comments	Tech Issues	Schedule Issues	Cost Issues	Staffing Issues
Infrastructure Support							
IFM	IFMP	585	1) Completed phase 3 security audit. 2) Cure/Show Cause Letter sent to KPMG as part of replan activities.				
Y2K Readiness	400	580	Participated in the GSFC Y2K Communications Center Team that provided round-the-clock mission and data services monitoring during the Y2K weekend.				
IAR	SOMO	580/581	Provided two members to the SOMO IAR Panel.				
Action Item System	580	584/585	Completed development of ISC web-based Action Item System				
ISC Technologies and Initiatives							
Spacecraft Emergency Response System (SERS)	SMEX, MIDEX, EO-01, and HST	586	Held SERS User's Group meeting, January 12, 2000, to demonstrate new technologies prototyped specifically for SERS customers and assess existing and proposed features.				
System Analysis	NTPIO	585	Completed analysis of four JPL Mission studies to identify potential new technology thrust areas for NTPIO to use in their Investment Strategy Planning.				
Standards/ Communications	Standards Office Code 730.4	586	1) Developed preliminary test and implementation plans as well as a cost estimate for space Link Protocol Testing using the STRV Spacecraft. 2) Set up a STRV Steering Group, with members from HQ, GSFC, GRC, and CSOC, to help develop a test plan.				
Common Planning and Scheduling System(ComPASS)	STSI	588	Refocusing project on new problem of coordinated observation planning. The Space Telescope Science Institute is working with Code 588 in defining the requirements.				
InVision	Code 900	588	Completed Build 6 of Image2000.				

BI-MONTHLY ISR – February 2, 2000

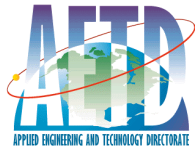


MAJOR PROJECT ISSUES AND ACTION PLAN



- **ESDIS - still have numerous critical and non-critical position openings**
 - ◆ January 19, 2000 meeting with project to prioritize job fills
 - 12 open positions -- 6 high priority (4 senior positions)

- Mission Director position filled in 581 by new hire (Bill Guit) on January 3, 2000 to support Landsat-7 and TRMM
- Jackie Mims/586 was selected as Most Promising Engineer in Government by the 2000 Black Engineer of the Year Awards Selection committee. She will attend the 14th Annual Awards Conference on February 17-19, 2000 in Baltimore.
- Jackie Mims/586 was featured on MPT's "State of Mind" for the WIRE testbed collaboration with Bowie State University
- GSFC Quarterly Honor Awards
 - ◆ Quality and Process Improvement
 - Group award to Mission Robotic Automation Team/581
 - ◆ Customer Service Excellence
 - Group award to MAP Flight Software Team/582
 - Individual Award to Arturo Ferrer/582



TECHNOLOGY HIGHLIGHTS



- Submitted 8 technology proposals to the Code Y Advanced Information Systems Technology (AIST) Program NRA
- Steve Naus/585 identified as GSFC representative to Agency Knowledge Management team
- Code 581 visited Globalstar operations facility in San Jose on January 19 & 20, 2000 as part of ISC Constellation Management Working Group

PAPERS AND CONFERENCES

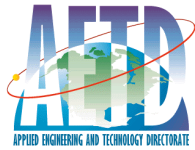
- H. Ramapriyan/586 gave an invited paper, “NASA’s EOSDIS and Access to Earth Science Data” at the 1999 Remote Sensing Applications Conference at Auburn University
- Code 588 presented a poster session on OMNI Project at the Small Explorers Pre-proposal Conference at the University of Maryland
- Prepared and delivered IMOC presentation to Center Director's Meeting at JSC, January 12, 2000. Decisions to definitize a new IMOC mission set and re-evaluate IMOC are forthcoming
- Doug McCuiston/580 presented overview and timeline of 7120.5 process for Digital Earth’s (DE) 8th Inter-Center Working Group Meeting, and participated in 2nd DE community meeting in Santa Barbara

PAPERS AND CONFERENCES (Cont'd)

- Pat Johnson and Michael Tong/583 were selected as part of review team for the 2nd International NASA Workshop on Planning and Scheduling for Space, scheduled for March 16-18, 2000 at ARC
- Participated in the Nanospace 2000 "Advancing the Human Frontier" Conference in Houston on January 24-28, 2000

COLLABORATIONS

- Collaborative effort between Code 583 and ARC initiated to evaluate its Remote Agent System and its applicability to GSFC planning and scheduling needs
- Code 586 participated in NASA/NOAA meeting to discuss plans for long-term archiving at the National Climate Data Center
- Code 586 supported Physical Oceanography DAAC User Working Group meeting at JPL
- Code 588 presented training classes on SEA design to members of the Astronomer's Proposal Tools (APT) team at the Space Telescope Science Institute



INSTITUTIONAL STATUS



OUTREACH

- Kick-off of AETD Minority Mentoring program November 2-3, 1999
- Presented information on NASA Careers to 5 classes on Career Day 2000 at Mount Harmony Elementary School in Calvert County

IT SECURITY

- 7 Security Incident Reports filed with Center Security Officer

SAFETY

- Les Wentz/584 is newly appointed 580 Safety Officer after Bill Kelly's retirement
- Delivered GSFC Safety Initiative awareness training to employees - 88% complete as of January 18, 2000

QMS

- ISO9000/QMS interviews with the 20 products teams in 580
- Self assessment of each product plan underway for compliance with then-current version of GPGs and information learned during initial certification audit
- Delivered a list of what teams need to complete to be compliant by next audit
- Updated 580 Product Development Handbook, based on last audit, due 1st week in February

FACILITIES

- Contractor appears to be on schedule with Building 23 HVAC effort, and 580 4th floor offices scheduled to be reoccupied on February 22, 2000